Patent Application

THREE POSITION HEADPIECE

BACKGROUND

1. Technical Field

The present disclosure relates to headpiece assemblies. More particularly, the present disclosure relates to headpiece assemblies having an increased flexibility of wear throughout a range of weather environments and preferences of the user.

2. Background of Related Art

Caps having separately wearable subassemblies have frequently been made that include a crown removably connected to a bill portion. The bill portion has a visor suitable for protecting the upper regions of the forehead from the sun and providing reduced eye strain. The crown and bill portion can be worn together, with the crown covering the top of the wearer's head and the visor shading the wearer's eyes, as well as separately.m The choice depending on the environment and preferences of the user. The crown and bill are often connected by a zipper and an adjustable connector employed to make the size of the cap adjustable.. Advertising and decorative logos are often applied to the outside of such caps, so that maximizing the attractive space available for such purposes, and the presentation of a smooth, uninterrupted external surface is important. Different approaches have been taken to make such caps.

For example, in U.S. Patent No. 6,070,270 to De La Torre, a three-in-one transformation hat having a crown and a visor connected by a zipper on the exterior surface of the visor is disclosed. De La Torre also teaches that concealing strips, that are not shown in its figures, could be used on the exterior of the headwear to cover and conceal the connection

between the two zipper elements, when crown and visor are together. This, however, requires additional manufacturing steps to cut and add the external covering strips, without which the zipper connection becomes exposed to view and entirely exposed top the elements. The positioning of the zipper on the exterior surface of the hat in De La Torre, leaves two visible strips, additional seams and/or a noticeable gap. These detract from the appearance of the hat, interrupt the advertising surface, attract attention to the connection that is made, and leave the connection that is made vulnerable to weather conditions. The present invention avoids the additional manufacturing steps of cutting and attaching two concealing strips and, with fewer seams, it is less vulnerable to damage caused by weather and wear, and is more esthetic in appearance.

In U.S. Patent No. 5,845,338 to Clark, a multi use head cover is disclosed having a zipper connecting a visor band and a fabric dome. The fabric dome is specifically configured for the crown portion to meet the religious requirements of a Jewish yarmulke and does not extend downward over the side of the head of a wearer. One side strip of the zipper is positioned on the exterior and upper edge of the visor band and the other is positioned on the corresponding edge of the fabric dome or yarmulke. Clark does not discuss concealing the zipper and thus leaves an exposed visible, strip that is detracting and also vulnerable to weather conditions.

The U.S. Patents Nos. 5,099,524 and 5,901,370 to Linday describe segmented cap assemblies having a crown component, a visor component, and a sweatband component connectable together in varying combinations using hook and loop strips. The two Linday patents define an internal connection between a fabric crown and a preferably plastic visor. They employ hook and loop sections on the visor component and the crown component to effect detachable connection. These require great care by the user in order to reliably achieve the desired aligned

appearance each time the crown and visor are disassembled and re-joined. In addition, the Linday patents are vulnerable to uncontrolled and undesirable penetration of rain running from the crown component into the gap at the hook and loop connection between the forehead portion and the crown component.

A continuing need exists for a multiple position headpiece assembly that is readily and reliably repositioned, has an improved inclement weather capability, and provides an attractive, visually uninterrupted surface. for advertising and decoration.

SUMMARY

A three position headpiece assembly is provided comprising a visor portion and a crown portion. The visor portion includes a hatband that is connected with a visor and a sweatband. The visor portion can also include an adjustable connector for varying the size of the headpiece. The crown portion has a generally domed shape defining a top and a lower edge. A continuous fastening mechanism has a first portion positioned on an inner surface of the hatband and a second portion positioned on the lower edge of the crown portion.

In a first position, the crown portion and visor portion are arranged together with the first portion and the second portion of the continuous fastening mechanism being connected and concealed by the headband. The outer surface of the hatband is configured to uniquely provide an additional protective barrier for the junction of the continuous fastening mechanism during inclement weather and provide an uninterrupted surface for advertising. The hatband is also configured to provide a channel, in combination with a rim of the crown portion, for the controlled collection and dissemination of fluids such as rainwater from the crown portion.

In a second position, the crown portion is disconnected from the visor portion and the headpiece is arranged for the visor portion to be worn separately. The first portion of the

continuous fastening mechanism remains concealed on the inner surface of the hatband. Alternatively, when the headpiece is arranged for the crown portion to be worn without the visor portion, the headpiece is in a third position.

The invention, together with attendant advantages, will be best understood by reference to the following detailed description of the invention when used in conjunction with the figures below.

BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the presently disclosed three position headpiece are described herein with reference to the drawings, wherein:

FIG.1 is a top perspective view of one preferred embodiment of the three position headpiece in a first position constructed in accordance with the present disclosure;

FIG. 2 is a partially cut away rear perspective view of the headpiece of FIG. 1;

FIG. 3 is a top perspective view of the headpiece of FIG. 1 in a second position with the crown portion disconnected from the visor portion; and

FIG. 4 is a rear perspective view of the headpiece of FIG.1 in a third position with the visor portion disconnected from the crown portion.

DETAILED DESCRIPTION OF THE EMBODIMENTS

Referring now in specific detail to the drawings in which like referenced numerals identify similar or identical elements throughout the several views, and initially to FIGS. 1-2, a novel headpiece 10 having a shape of a baseball cap or hat is shown constructed in accordance with the present disclosure and is intended for use with a head of a wearer.

Headpiece 10 has a first position wherein a visor portion 20 is removably connected to a crown portion 40. Headpiece 10 has a frontal area 12 including a visor 22 and a diametrically

opposing rear area 14 that can have an adjustable connecting mechanism 60, such as a hook and loop, strap, snap, or buckle type device. In the alternative, headpiece 10 can have a range of predetermined hat sizes without connecting mechanism 60.

Visor portion 20 has a visor 22 connected to a hatband 30. Visor 22 is preferably positioned diametrically opposite adjustable connecting mechanism 60 on headpiece 10, has a generally arcuate cross section perpendicular to a first axis defined by visor 22 and connecting mechanism 60, and has a suitable configuration and dimensions for a sun visor. Visor 22 is preferably made of a semi-rigid material.

Hatband 30 is fabricated of flexible fabric materials and at least has an arcuate shape with a center defining an intersection of a second axis perpendicular to the first axis such that the second axis also intersects opposing points of hatband 30. When utilized, connecting mechanism 60 is attached to terminal ends 31 and 33 and defines a completed circular structure in combination with hatband 30. Hatband 30 in one preferred embodiment is fabricated at least partially of the same material as crown portion 40. While hatband 30 in this embodiment is shown with seams corresponding to the seams on crown portion 40, hatband 30 can be fabricated of any suitable material for the application of a hatband as described herein including a continuous strip of material without seams as well as a material with seams or other means of joining pieces of one or more materials.

Hatband 30 defines a first or a bottom edge 32 and a second or an upper edge 34. First edge 32 is connected to an upper surface of visor 22. Second edge 34 extends generally perpendicular to the first and second axes in the direction of a top 42 of crown portion 40 and is hereafter described as upward or above. The opposing direction perpendicular to the first and second axes, is referred to hereafter as downward or below. Hatband 30 also includes an outer

surface 36 and an inner surface 38 as well as ends 31 and 33. Hatband 30 preferably has sufficient structural integrity to remain upright such that upper edge 34 is a freestanding edge unconnected to any other portion of headpiece 10.

Crown portion 40 is joined to visor portion 20 by a continuous fastening mechanism 35 that can be a zipper or a continuous pressure snap type apparatus, for example, providing a secure and aligned attachment. A first portion 35A of the continuous fastening mechanism 35 is positioned on inner surface 38 a suitable distance below upper edge 34 for the concealment of first portion 35A. Continuous fastening mechanism 35 extends between ends 31 and 33 of hatband 30. A second portion 35B of continuous fastening mechanism 35 is positioned on crown portion 40 and is also concealed when connected to first portion 35A during the normal wear of headpiece 10. The position of first portion 35A on inner surface 38 can vary from the suitable distance below edge 34 for concealment to edge 32 or directly to visor 22. A rim 39 is defined by the distance between edge 34 or visor 22 and first portion 35A.

Outer surface 36 of hatband 30 provides a valuable protective element constructively positioned to assist headpiece 10 in keeping inclement weather conditions, such as a driving rain, from being forced through continuous fastening mechanism 35. Additionally, outer surface 36, crown portion 40, and visor 22 have an uninterrupted surface suitable for the positioning of logos, advertisements, or trademarks 70, for example, without additional detracting lines, gaps, or overlying layers of materials having undesirably varying colors or textures. The uninterrupted surface 36, as defined herein, can include seams joining material segments typical of many baseball style caps, which can still fixedly accommodate items such as advertisements throughout the dimensional range of hatband 30.

Further, the combination of rim 46 of crown 40, continuous fastening mechanism 35, and rim 39 of hatband 30, define a continuous channel 50 running the length of hatband 30. In one preferred embodiment, headpiece 10 when worn in a normal configuration with lower edge 32 of hatband 30 approximately level, channel 50 has a peak approximately at the point of intersection with the first axis and has a descending slope toward rear 14 of headpiece 10.

Crown 40 preferably has a generally rounded dome shape with a centrally positioned peak or top 42 and a circular lower edge 44 interrupted by an arcuate cut out 45. Peak 42 can have a button, logo, or an uninterrupted surface. Crown 40 is preferably fabricated of segmented portions, but can also be formed from a continuous single piece of material. Hatband 20 is preferably fabricated similarly to crown 40. Arcuate cut out 45 is positioned diametrically opposite visor 22 and directly above connecting mechanism 60. Corners 43 and 47 of cut out 45 abut edges 31 and 33 of hatband 30. Cut out 45 provides enhanced flexibility for the range of adjustable sizes for connecting mechanism 60. In an alternative embodiment, wherein hatband 30 has a continuous annular structure 61, fitted crown 40 has a mating circular lower edge 44 without cut out 45.

Hatband 30 includes a sweatband 28 having an outer fabric material and an inner sweat absorbing material abutting inner side 38. Sweatband 28 is the primary interface with the wearer and runs the length of the arcuate inner surface of hatband 30. Sweatband 28 has a lower edge 27 that is attached to hatband 30 lower edge 32 and visor 22.

As shown in FIG. 3, when crown portion 40 is removed, headpiece 10 is arranged in a second position wherein visor portion 20 is worn separately. Visor portion 20 in the second position retains the advantages provided by hatband 30 of concealing continuous fastening mechanism 35 below edge 34 during normal wear and providing an advertising surface that is

uninterrupted by the lines of a continuous connecting mechanism or varying textures or types of materials for concealing strips. Edges 31 and 33 are attached to adjustable connecting mechanism 60.

Sweatband 28 has a free upper edge 29 which provides a relative bias against the head of the wearer. The relative bias of sweatband 28 provides for an improved collection of sweat and assists in comfortably retaining headpiece 10 on the head of the wearer. Upper edge 29 is positioned below the upper edge of continuous fastening mechanism 35.

Referring now to FIG. 4, headpiece 10 is in a third position wherein crown portion 40 is worn as a skull cap. Crown portion 40 preferably has a button positioned on top 42 and continuous fastening mechanism 35B extends downward from edge 44 and is visually exposed. Edge 44 is interrupted by cut out 45 when adjustable connecting mechanism 60 is employed. The dome shape of crown 40 at least partially covers the side of the head of the wearer thereby providing additional protection from ultraviolet rays when visor portion 20 is not desired or is detrimental to the wearer's work or recreation activity, for example.

Although the illustrative embodiments of the present disclosure have been described herein with reference to the accompanying drawings, it is to be understood that the disclosure is not limited to those precise embodiments, and that various other changes and modifications may be affected therein by one skilled in the art without departing from the scope or spirit of the disclosure. All such changes and modifications are intended to be included within the scope of the disclosure.